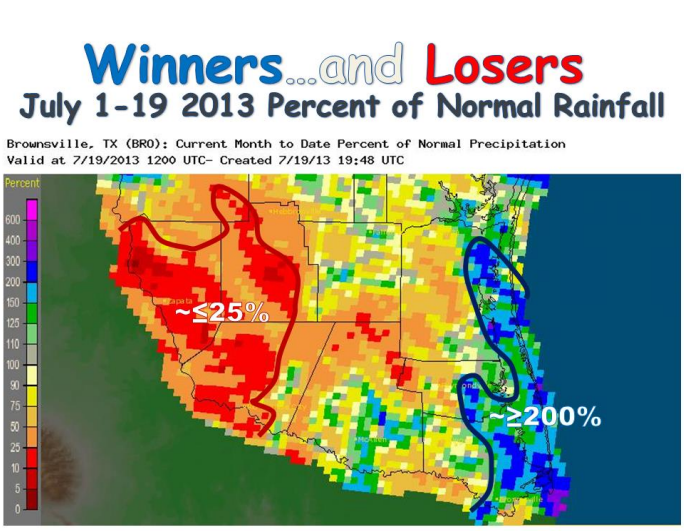
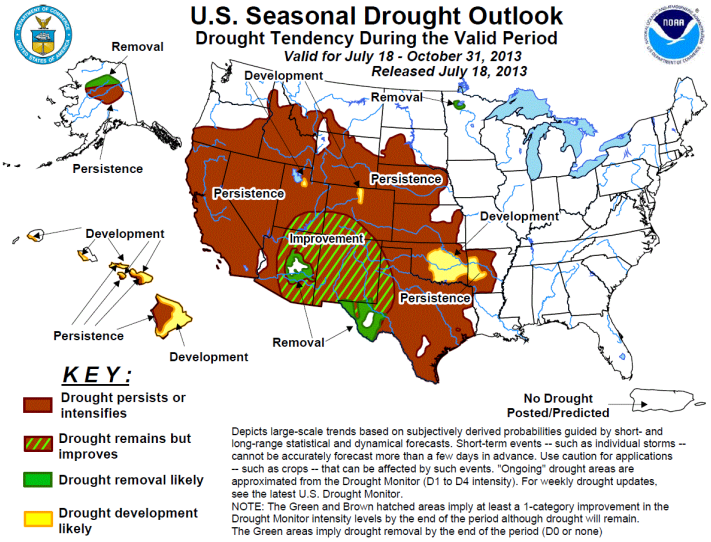
Mid July Drought Update





Left: Percent of average July precipitation. Despite periodic hope and temperatures near normal, areas away from the coast remained dry. ***Right:*** Persistence of much of the Texas drought returned to the late summer through mid autumn outlook. One silver lining could be improved rain potential in the upper Rio Grande Basin (green and hatched area)

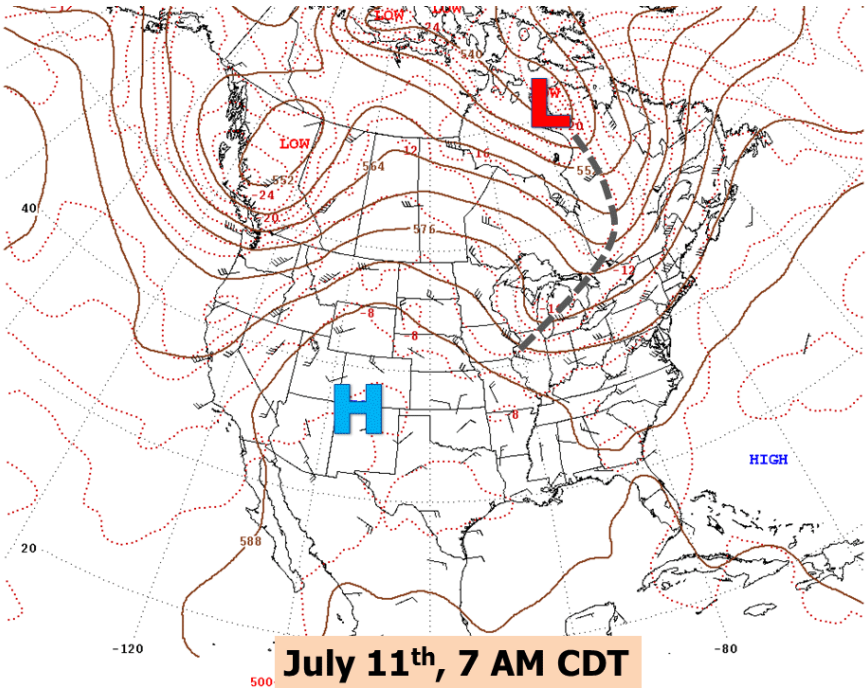
Drought, Undaunted?

Mid-July 2013 Coastal Rains Do Little to Improve Big Picture

Mid July Status Report

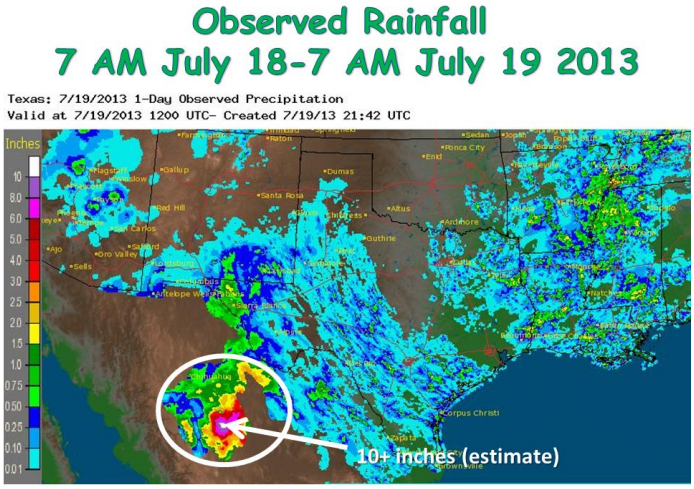
Unlike this time last year, when July featured a number of triple-digit days west of Highway 77 with minimal rainfall and cloud cover, a good portion of July 2013 through the 19th featured abundant clouds and a few periods of rainfall, courtesy of a weak disturbance near the coast on the 7th and 8th and a broader trough of low pressure that moved from the Mid-Atlantic region on the 11th *southwest* across the nation during the following week (right; click here to view the loop), reaching northwest Mexico by daybreak on the 19th.

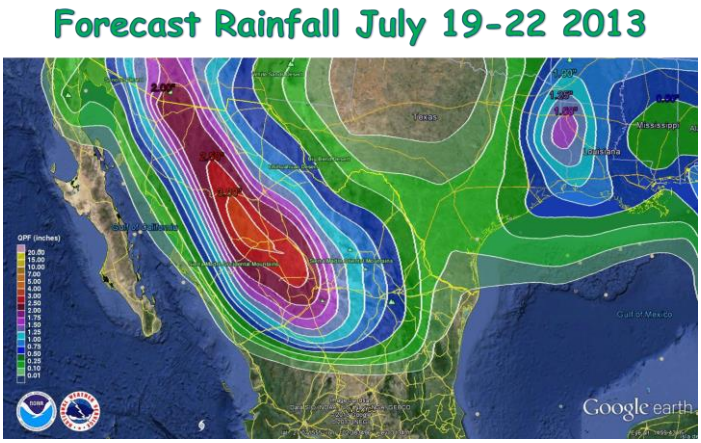
Some Good News: Coastal communities in Cameron County received some rainfall on the 6th and 7th, and after a "jump" inland due to the sea breeze, some of Hidalgo County along and just east of Highway 281 got a break in the dry weather as well. Steadier rainfall occurred as the upper low reached into southwest Texas on the 17th from the Lower Gulf waters into the eastern half of Cameron, extending north through eastern Willacy then bending northwest toward Falfurrias (Brooks County), including a good portion of the King Ranch. Unfortunately, these mid-July morning rains pushed cloud cover into the mid and upper Valley, which stabilized the atmosphere and left most areas west of Highway 77 (in the Rio Grande Valley) dry.



A Little More Good News: The final position of the upper low on July 19th , near Sinaloa, Mexico, was perfect for maximum upslope flow into the Sierra Madre Occidental over the headwaters of the Rio Conchos basin in western Chihuahua State. These waters feed numerous reservoirs in Mexico, but also lead to the Rio Grande north of Amistad International Reservoir. Total

rainfall in the area was expected to end up between 10 and 20 inches, which could provide a little boost to lake levels at Amistad heading into the final weeks of July.

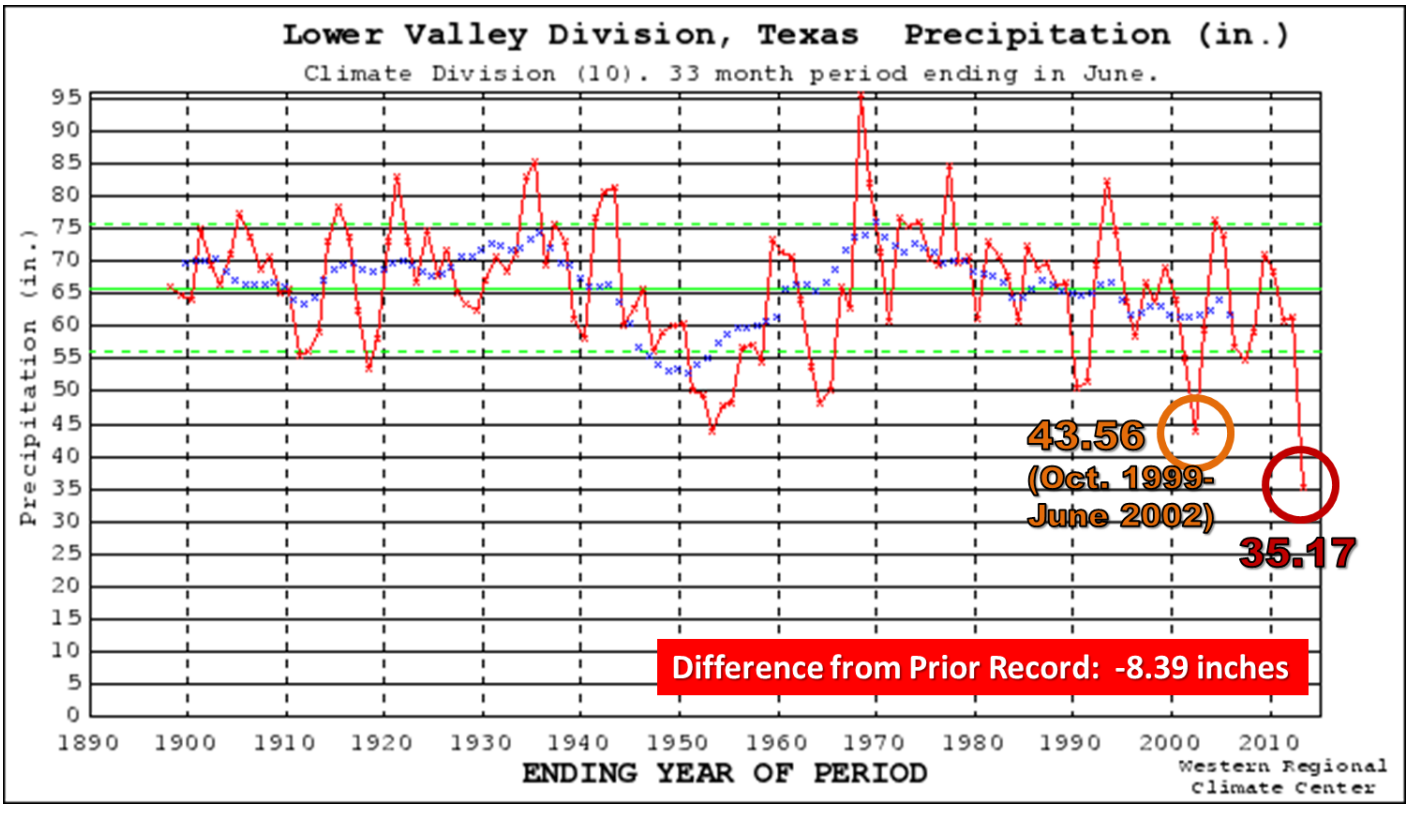




Left: 24 hour rainfall estimate for Texas and northern Mexico; more than 10 inches estimated across the headwaters of the Rio Conchos, which eventually feeds into the Rio Grande north of Amistad International Reservoir. **Right**: Additional heavy rainfall was forecast through the weekend of July 20/21 in these areas. Red and orange "bullseye" indicates 2.5 to 4 inches forecast, on average.

The Big Picture…and The Outlook

As mentioned in the June 2013 wrap, the dry, hot month would likely increase the "separation" between the prior all time driest 33 month October through June period (and 24 month July through June period, not shown) and the current record-shattering period. Indeed, after closing the gap a little in May, each difference increased back toward differences last seen at the end of April. The chart below shows how little rainfall has fallen in the Lower Rio Grande Valley during the current period of drought (October 2010-June 2013, red circle) when compared with other periods dating back to 1895.



Mid July Drought Update

The long range forecast toward the end of July and into early August is expected to return the region back to the prevalent – and expected for this time of year – “La Canícula” pattern (below). This will bring a resurgence of hot, rain free weather for most areas and ensure that, other than a few locations toward the coast, the month ends up below average for rainfall and a little above average for temperature.

The seasonal forecast through September and October *suggests* more of the same, which would keep Severe to Exceptional Drought going, with potential deterioration once again in areas which have seen modest improvement from time to time since late April. The wildcard remains the peak of the 2013 hurricane season, which begins in August and continues through September for the Valley. Will the window remain shut again this year? Or could a cyclone sneak through a crack and provide rainfall needed to give more than temporary relief to parched soils, and/or spread to the upper reaches of the Rio Grande basin to help fill reservoirs beyond allegorical drops in the bucket? And, might the Southwest U.S. late summer monsoon push some helpful waters down Rio Grande and slow or stanch the fall of reservoir levels due to evaporation?

Stay tuned to weather.gov/rgv and our social media pages for continuous updates through summer 2013.